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IN THE

Supreme Court of the United States

OCTOBER TERM, 1961

No.

EDWARD VALVES, INC., AND
ROCKWELL MANUFACTURING COMPANY,
Petitioners,

v.

CAMERON IRON WORKS, INC.,
Respondent.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FIFTH CIRCUIT

Petitioners respectfully pray for the issuance of a writ of certiorari to the United States Court of Appeals for the Fifth Circuit, to review the judgment* of that Court entered February 7, 1961, affirming the judgment** of the United States District Court for the Southern District of Texas, Houston Division, dated July 30, 1959, holding

* R. 1008.
** R. 760-762.

the Allen Patent No. 2,606,740 valid and infringed by petitioners' "Mudwonder" valve.

OPINIONS BELOW

The opinion of the Court of Appeals dated February 7, 1961, is reported at 286 F. 2d 935. The opinion of the Court of Appeals dated April 18, 1961, denying petition for rehearing is reported at 289 F. 2d 355. Both opinions are printed in the appendix hereto, commencing at pages 1a and 34a, respectively.

JURISDICTION

The jurisdiction of this Court is invoked under Section 1254 of the Judicial Code (28 U.S.C. Sec. 1254).

QUESTIONS PRESENTED

1. Is it proper for a District Judge in a non-jury case, after announcing his decision and the reasons therefor, to delegate to the attorney for the prevailing party the task of preparing the "findings of fact" and "conclusions of law", and thereafter to adopt such "findings" verbatim, even though they are inconsistent with the reasons previously announced by the judge for his decision?

2. Are the provisions of Rule 52(a), FRCP, to the effect that "findings of fact shall not be set aside unless clearly erroneous", applicable to "findings of fact" written by the attorney for the prevailing party and adopted verbatim by the District Judge under the conditions set forth in paragraph 1 above?

3. Should a mere "paper" patent, never commercialized by its owner, be accorded a monopoly commensurate with the inventor's broad statement of the "object" of his invention, or should it be limited to the device actually disclosed and claimed therein?

4. Should such a patent be construed so broadly as to eliminate competition between the patent owner's earlier form of valve, itself unpatented, and competitive valves which are neither disclosed nor claimed in the patent?

RULE 52(a), FRCP

This petition involves Rule 52(a), FPRC, which reads as follows:

Rule 52 Findings by the Court

> (a) Effect. In all actions tried upon the facts without a jury or with an advisory jury, the court shall find the facts specially and state separately its conclusions of law thereon and direct the entry of the appropriate judgment; and in granting or refusing interlocutory injunctions the court shall similarly set forth the findings of fact and conclusions of law which constitute the grounds of its action. Requests for findings are not necessary for purposes of review. Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge of the credibility of the witnesses. The findings of the master, to the extent that the court adopts them, shall be considered as the findings of the court. If an opinion or memorandum of decision is filed, it will be sufficient if the findings of fact and conclusions of law appear therein. Findings of fact and conclusions of law are unnecessary on decisions of motions under Rules 12 or 56 or any other motion except as provided in Rule 41(b).

STATEMENT OF THE CASE

Petitioners are the principal competitors of respondent in the manufacture and sale of rubber-seated valves for use in controlling the flow of abrasive-laden fluids under high pressures. These valves, commonly called "mud valves", are used extensively in the drilling of oil and gas wells.

Petitioners' valve, accused of infringement, is sold under the trademark "MUDWONDER". Respondent's valve is sold under the trademark "FLEX-SEAL".

Prior to 1953 respondent's Flex-Seal valve, made pursuant to the now expired Allen Patent No. 2,194,262 (R. 810, *not* the patent in suit), dominated the mud valve market.

Petitioners' Mudwonder valve was introduced to the market in October of 1953, after some eighteen months of research, development and testing, and met with immediate commercial acceptance.

Faced with this serious competitive threat, respondent sought to regain its dominant position — not by product improvement — but by exploitation of the "paper" patent here in suit, No. 2,606,740 (R. 822, herein called "the '740 patent"), which respondent has never attempted to commercialize.

Respondent had previously sued the Stekoll Company, a minor competitor of limited resource, for infringement of the '740 patent. In that case, the District Court held the patent invalid and not infringed by the Stekoll valve.* However, the Court of Appeals for the Fifth Circuit re-

* 109 USPQ 312 (1956)

versed, holding the patent valid and infringed, although very limited in scope.*

Immediately after its victory in Stekoll, respondent sued petitioners for alleged infringement of this "paper" patent. At the conclusion of the trial, the District Judge (the same Judge who had decided the Stekoll case and had been reversed by the Court of Appeals) announced from the bench his decision holding the '740 patent valid and "deliberately" infringed by petitioners' Mudwonder.

After announcing his decision and stating the reasons therefor, the District Judge requested the attorney for respondent to prepare and submit findings of fact and conclusions of law (R. 721). No opportunity was given to the attorney for petitioners to submit his suggested findings and conclusions.

Nearly a month after the District Court's decision in favor of respondent, respondent's attorney submitted a set of 77 proposed "findings of fact" and 23 proposed "conclusions of law". These proposed "findings" and "conclusions" were clearly inconsistent, in two vital respects, with the reasons previously given by the District Judge for his decision, namely:

> 1. The District Judge had based his holding of validity *solely* on the prior Stekoll decision, which he thought compelled him to hold the patent valid.** Accordingly, he had paid no attention whatever to the

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* *Cameron Iron Works, Inc.* v. *Stekoll*, 242 F. 2d 17 (1957). The Court said, at page 22:

> ". . . as applied to a device which is very well known, and a patent which was never put into commercial use by its owner, the law entitles only a narrow treatment as to range of equivalents."

** The Court: "Its validity has been adjudged in the Stekoll case . . . . I see that I have no alternative except to find the patent valid." (R. 721)

prior art introduced by petitioners.* Nevertheless, 24 of the "findings" prepared by the respondent dealt specifically with the prior art, item by item.

2. The District Judge had mistaken one of respondent's exhibits (a Mudwonder valve *body*, altered so as to incorporate the sealing rings of the patent) for the real Mudwonder valve.** This deep-seated but erroneous belief of the District Judge was never corrected, despite repeated efforts by petitioners' counsel.*** Nevertheless, respondent's "findings" purported to apply the claims of the patent, element by element, to the *real* Mudwonder, something which the District Judge had never done.

Despite these inconsistencies, respondent's voluminous "findings" and "conclusions" were adopted *verbatim* by the District Court (except for two inconsequential changes in referring to the patent in suit and to the Stekoll case), including the *identical* punctuation, numbering, grammatical errors and peculiarities of expression used by respondent's attorney (R. 733-760).

The Court of Appeals for the Fifth Circuit, in its original opinion dated February 7, 1961, placed extraordinary reliance**** on the "findings", and affirmed the District Court on all issues, including the holding of "wilful and deliberate" infringement. *Eighteen times* in its opinion, the Court of Appeals referred to the "findings" in disposing of petitioners' contentions. It characterized these "findings" as "comprehensive" and "detailed", and made no serious effort to

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* The Court: "Well, I was seduced in the Stekoll case on that very same argument, and I was led into error and I was seduced by the advocates of the prior art theory, and I thought it was right, but I learned that I was wrong." (R. 667)

** R. 318, 326.

*** R. 326, 328, 571, 670, 672.

**** The Court of Appeals quoted 8 "findings" in full. One finding was quoted in full *twice*.

go behind the "findings" for the purpose of scrutinizing the patent claims in light of the prior art or to see whether they really did cover petitioners' Mudwonder.

Petitioners sought a rehearing, contending that the Court of Appeals had erred in affirming the holding of "wilful and deliberate" infringement, and that in the light of the circumstances surrounding the preparation of the "findings", the Court of Appeals had erred in according them undue weight.

The Court of Appeals, in its opinion on the petition for rehearing, agreed with petitioners that it had gone too far in affirming the District Judge's holding of "wilful and deliberate" infringement, which it set aside. However, the Court rejected petitioners' contention that it had accorded undue weight to the "findings", and denied the petition for rehearing.

On April 26, 1961, on application by petitioners, the Court of Appeals stayed its mandate for a period of 90 days from April 18, 1961. (R. 1052)

After the decision of the Court of Appeals, respondent sued Drilling Equipment Manufacturing Co. (DEMCO), the only remaining competitor in the field, for alleged infringement of the '740 patent.

REASONS FOR GRANTING THE WRIT

This petition seeks review of a decision which presents important questions of federal law in two areas, one involving the Federal Rules of Civil Procedure and the other involving the Patent Laws. Each, we submit, affords compelling reasons for granting the writ.

A. The Federal Rules of Civil Procedure.

1. *The Court's Interpretation of Rule 52(a) Is Wrong and Should Be Corrected.*

The Court of Appeals has held that a District Judge may shift the judicial function imposed on him by Rule 52(a), FRCP, to the attorney for the prevailing party. The Court of Appeals has further held that even though the District Judge's *only affirmative act* is to sign counsel's "findings" they are nevertheless entitled to full weight on appeal.

Both holdings, we submit, are wrong and should be corrected.

This is *not* a case where the District Judge requested proposed findings from *both* sides and then adopted those submitted by respondent — which requires some exercise of the judicial function by the District Judge in choosing between the two sets of proposed findings. Presumably for this reason, such practice has received at least limited approval both in this Court and in a number of the Courts of Appeals, including that for the Fifth Circuit. See, *United States* v. *Crescent Amusement Co.*, 232 U.S. 173, 184 (1944); *Saco-Lowell Shops* v. *Reynolds*, 4 Cir., 141 F. 2d 587, 589 (1944); *Kinnear-Weed Corporation* v. *Humble Oil & Ref. Co.*, 5 Cir., 259 F. 2d 398, 400-401 (1958).

Nor did the District Judge use the proposed findings submitted by respondent's counsel *as a draft*, to be examined

critically, adopted where in accord with the Judge's views and rejected or modified in other respects. The District Judge made *not a single change* of any substance in any one of the 77 "findings" and 23 "conclusions" submitted to him by respondent's counsel. Moreover, the carry-over of counsel's errors clearly demonstrates *uncritical and mechanical copying* by the Judge. The result is that the "findings" and "conclusions" reflect simply the arguments and contentions of respondent's counsel, rather than the independent judicial labors of the Judge.

Finally, the "findings" submitted by counsel did not develop or enlarge upon the reasons given by the District Judge for his decision. Instead, these "findings" are clearly *inconsistent* with the reasons which had previously been stated by the Judge for his decision.

In adopting verbatim these "findings" and "conclusions", the District Judge failed to perform his judicial function and delegated that important function to respondent's counsel. This, we respectfully submit, violated both the letter and the spirit of Rule 52(a), FRCP, which requires that "*the court* shall find the facts specifically and state separately its conclusions of law thereon."

The Court of Appeals, in its opinion on the petition for rehearing, did say (App. p. 35a):

> "We strongly disapprove any attempt to downgrade a trial judge's important function of fact finding."

However, despite its acknowledgment of the "mechanical adoption" of counsel's findings, and the "inconsistency between the findings and the district court's reasons for its decision", the Court of Appeals held (App. p. 35a) that:

> ". . . . *the same test* is applied to findings, whether the court prepared them or adopted those submitted by counsel. The court's adoption of appellee's findings

does not impeach or discredit them. *We accord them full weight.*" (Emphasis ours).

We respectfully submit that while the Court of Appeals properly disapproved the action of the District Judge in mechanically adopting respondent's findings, it erred in according such findings "full weight".

In *United States* v. *Forness*, 125 F. 2d 928, 942-943 (2 Cir., 1942, cert. den.), Judge Frank pointed out the dangers involved in the mechanical adoption by the trial judge of "findings" prepared by winning counsel — particularly in view of the extreme difficulty of correcting errors in the "findings" on appeal.

Moreover, we submit that where, as here, the ultimate decision of the District Judge was based on error, the likelihood that a wrong result was reached is so great that the appellate courts must be free to look behind a set of "findings" carefully written by the winner to mask the Judge's errors. Otherwise, the purpose of Rule 52(a) as a tool of justice is completely subverted.

2. *The Decision of the Court of Appeals for the Fifth Circuit Is In Conflict With Decisions of Other Courts of Appeals on The Same Matter.*

Even before the adoption of the Federal Rules of Civil Procedure, it had been held that "findings" which had actually been written by the attorney for the prevailing party, and adopted by the trial judge, were of no help on appeal, and that "when the abuse is aggravated" (as it surely is here), it is necessary for the appellate court "to study the evidence as though no findings had been made by the Dis-

trict Court". *Process Engineers* v. *Container Corp.*, 7 Cir., 70 F. 2d 487, 489 (1934).

Since the adoption of the Federal Rules, at least two of the Courts of Appeals have said that "findings" prepared by the attorney for the prevailing party, and mechanically adopted by the district judge an appreciable time after its decision, are not to be accorded the full protection of Rule 52(a), FRCP — in direct conflict with the rule applied by the Court of Appeals in the present case.

In a very recent decision, *Chickopee Manufacturing Corp.* v. *The Kendall Co.*, 4 Cir., 288 F. 2d 719, 724 (1961), the Court said that the delegation of the preparation of the "opinion" (which pursuant to local practice incorporated the findings of fact and conclusions of law) to the attorney for either side "involves the failure of the trial judge to perform his judicial function", justifying "a reversal of the judgment and a remand for further proceedings . . .".*

On June 21, 1961, Chickopee filed a petition for certiorari (Docket No. 164) claiming, among other things, that the foregoing statement by the Fourth Circuit is contrary to the rule applied by the Fifth Circuit in the instant case (Pet. p. 22). Thus, the existence of a conflict between these two Courts of Appeals is clear.

Moreover, in *Red Star Towing & Transportation Co.* v. *The Hudson*, 2 Cir., 219 F. 2d 307, 309 (1955), that Court criticized "findings" prepared by winning counsel and adopted without change by the District Judge three weeks after he had filed his decision, saying:

> "This court has heretofore had occasion to comment on the undesirable character of findings thus made. To

* No "further proceedings" were ordered, however, because the Court, having found the patent in suit to be invalid, simply reversed with directions to dismiss the complaint.

> the extent that such findings go beyond the facts as stated in the trial judge's opinion, they have less weight on appeal than they would be entitled to if they represented the judge's independent determination . . ."

We respectfully submit that this Court should resolve the conflict between the decision of the Court of Appeals for the Fifth Circuit and the decisions of other Courts of Appeals on the proper weight to be accorded "findings" prepared by counsel for the prevailing party after the decision, and mechanically adopted by the District Court.

B. The Patent Laws

The decision of the Court of Appeals departs from the Constitutional purposes of the Patent Laws and from prior decisions of this Court and injects further uncertainty into a troublesome area of patent law.

We are concerned here with the scope of the monopoly to be given to the owner of a mere "paper" patent.

Respondent has neither offered the valve of the patent in suit to the public nor granted licenses to permit others to do so. After tests, respondent junked its experimental valve made in accordance with the patent. The patent has been used by respondent *solely* for the purpose of litigation, to surpress competition which developed in a field once dominated by respondent's now unpatented Flex-Seal valve.

The claims of the '740 patent are specific and detailed; the disclosure is limited. At best, the patent represents a narrow improvement in a crowded field.

The patent discloses a "special form" of sealing ring, the chief distinguishing feature of which is a pair of flexible "lips" separated by a V-shaped groove.* This limitation was clearly recognized by the Court of Appeals which said (App. pp. 15a-16a):

> "Thus, the Allen patent twice states that one of its objects is to provide a 'special form' of sealing ring, and the only form of sealing ring disclosed is the form embodying lips separated by a V-shaped groove. *Nowhere in the specification, drawings, or in the Patent Office record is there any reference to any form of sealing ring, special or otherwise, that does not have this V-shaped groove.*" (Emphasis ours.)

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* The same form of sealing ring was disclosed in prior art patents introduced by petitioners which were not of record in the Stekoll case.

Petitioner's Mudwonder lacks this critically important feature — as the Court of Appeals recognized (App. p. 17a).

Also, the patent discloses a sealing structure comprising *two separate sealing* rings, positioned at opposite sides of the valve body. In contrast, the Mudwonder has a one-piece sealing member. This difference was also recognized by the Court of Appeals, as follows (App. p. 11a):

> "But in the Mudwonder valve the rubber rings are joined by a crescent shaped bridge that is engaged only by the bottom surface of the gate. In the Allen patent there is no bridge for engaging the bottom of the gate. *Allen's patented valve, in fact, has neither this bridge portion nor anything looking like it.*" (Emphasis ours.)

Nevertheless, despite its recognition that the structure of the Mudwonder differed from that disclosed in the patent, the Court of Appeals construed the patent broadly so as to cover the Mudwonder, because it felt the Mudwonder came within the principal "object" of the patent.*

Thus, an admitted "paper" patent, with a limited disclosure and detailed structural claims, has been accorded a monopoly co-extensive with the *broadly stated object* of the invention, rather than being limited to the device actually disclosed and claimed therein.

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* The Court said (App. p. 16a):

> "But the principal object of the invention presupposes broader coverage than the particular form of lip shown in the drawing. The patent states: 'The invention has as its principal object the provision of a valve having a fluid pressure actuated sealing means which will not tend to tear off or be blown past the valve closure member while the gate is being opened or closed.'"

It is important to note that the Court gave the patent this broad construction only when considering *infringement*. On the question of *validity*, full effect was given to the claim limitations.

In support of this remarkable holding, the Court below cited Crews, "Patent Claims and Infringement", Dynamics of the Patent System, pages 128-54 (1960 ed.). This interesting article concludes with the following statement (p. 141):

> "And so what you do, as I say, is simply to *sell the judge a bill of goods*, convince him that you made a great invention, therefore the patent is a pioneer, therefore you are entitled to a broad range of equivalents, therefore *whatever the claims say*, those claims are infringed." (Emphasis ours).

This cynical statement reflects a belief which is widely held in the patent profession, a belief engendered by the failure of the courts to interpret and apply the patent laws within the framework provided by the Constitution.

The Constitution grants to Congress the power "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries". This grant of authority to Congress is unique in that it is the only one in which the purpose of the power is stated. This purpose is (or should be) paramount. Any interpretation of the patent laws which does not serve this purpose should fall. As stated by this Court in *Mercoid Corp.* v. *Mid-Continent Co.*, 320 U.S. 661, 666 (1944), a patent is a privilege "conditioned by a public purpose".

We do not suggest that respondent's suppression or nonuse of the patent in suit invalidates the patent. We do, however, submit that the Constitutional purpose of the patent laws can be served only by confining the monopoly granted to the owner of such a "paper" patent to the inven-

tion actually disclosed therein. As the Court said in *Roberts* v. *General Electric Co.*, 85 F. 2d 964, 965 (3 Cir., 1936):

> "This is not a pioneer patent. It is now over nine years old and is still a mere paper patent. It is accordingly entitled only to a strict construction, confining its scope to the particular device it disclosed."

Any other construction subordinates the public purpose of the patent grant to the private interest of the patentee. It substitutes for principles of law the "sell-the-judge-a-bill-of-goods" rule, the avowed purpose of which is to induce the judge to hold that "*whatever the claims say*, those claims are infringed".

Thus, we submit, there is urgent need for a restatement of the principle enunciated by this Court in *Halliburton Oil Well Cementing Co.* v. *Walker*, 329 U.S. 1, 11-12 (1946), i.e. that a patent claim should not be construed so broadly as to include devices not disclosed in the patent or contemplated by the patentee, for to do so would stifle rather than promote progress in the art.

CONCLUSION

The interpretation which the Court of Appeals has placed upon Rule 52(a) is clearly wrong. It is also in conflict with decisions from the Second and Fourth Circuits.

The decision below also stands for the erroneous proposition that a patent monopoly is measured by the inventor's broad statement of his object, rather than by the invention actually disclosed and claimed.

If the decision below is permitted to stand, respondent will be well on its way toward the elimination of all competition in the rubber seated mud valve field, requiring only a victory over DEMCO to complete its monopoly — a monopoly achieved not through superiority of product or service, but through exploitation of a "paper" patent.

The interest of the public in free and open competition requires the exercise of this Court's power of supervision to correct the errors of the Courts below and thereby protect the public from the unwarranted extension of respondent's patent monopoly.

For the above reasons, petitioners respectfully pray that their petition for a writ of certiorari be granted.

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Of Counsel:

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CERTIFICATE OF SERVICE

I certify that copies of the foregoing Petition for Certiorari were duly served upon respondent herein, by depositing same in the United States mail, first class postage prepaid, addressed to James B. Simms, attorney for respondent, at P. O. Box 6026, Houston 6, Texas, on July , 1961.

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GARRETT R. TUCKER, JR.
Attorney for Petitioners.

IN THE

United States Court of Appeals

FOR THE FIFTH COURT

No. 18111

EDWARD VALVES, INC.,

AND

ROCKWELL MANUFACTURING COMPANY,

Appellants,

v.

CAMERON IRON WORKS, INC.,

Appellee.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF TEXAS

(February 7, 1961)

Before RIVES, CAMERON and WISDOM, Circuit Judges.

WISDOM, Circuit Judge: Cameron Iron Works, Inc. seeks injunctive relief and damages for an alleged infringement of its Allen patent, previously held valid in *Cameron Iron Works, Inc.* v. *Stekoll,* 5 Cir., 1957, 242

F. 2d 17.[1] The Allen patent is for a valve used in oil and gas drilling to control the flow of abrasive-laden fluids under high pressure.[2] The defendants, Rockwell Manufacturing Co. and its subsidiary, Edward Valves, Inc., counterclaimed but have not appealed from the dismissal of the counterclaim. The patent in suit is patent No. 2,606,740, issued to the plaintiff August 12, 1952, upon application of Herbert Allen filed April 5, 1945. After a trial taking eight days, the district court held

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[1] Herbert Allen, the inventor, is one of Cameron's key engineering personnel. Cameron manufactures and sells a line of products used in the oil industry. One of these is the commercially successful "Flex-Seal" valve, an earlier invention of Allen's. It too is used for controlling the flow of high-pressure, abrasive-laden fluids in pipe lines. The patent in suit was designed to provide a valve easier to open and close than the Flex-Seal. The Flex-Seal valve is not in suit, but appellants argue that it is prior art. See footnote 12 and accompanying text.

[2] The patent states: "This invention relates to valves and more particularly to the form of sealing means adapted to seal against the closure member of the valve when the latter is closed. ¶ The invention in one of its more specific aspects relates to a valve structure provided with a reciprocating, screw actuated gate valve of the nonrising stem type, in which the gate valve is provided with a special form of sealing ring or packing member, adapted to seal against the gate. ¶ The invention in another of its specific aspects relates to a valve structure having a rotating plug and being provided with a special form of sealing ring or packing member, adapted to seal against the plug. ¶ The invention has as its principal object the provision of a valve having a fluid pressure actuated sealing means which will not tend to tear off or be blown past the valve closure member while the gate is being opened or closed. ¶ Another object is to provide the sealing means with a lip which as the valve begins to open will first be uncovered to the high pressure fluid so as to equalize the fluid pressure acting on the two sides of the sealing lip. ¶ Another object is to provide the sealing means with a lip which will not tend to be blown past the valve closure member as it cracks open in opening the valve."

the patent valid and held that the defendants-appellants' accused device, a valve manufactured and sold under the trademark "Mudwonder", infringed the plaintiff's claims 1, 2, 4 and 5.[3] *Cameron Iron Works, Inc. v. Edward Valves, Inc.*, 1959, D.C. Sou. Dist. Tex. 175 F. Supp. 423. We affirm.

Before the Allen patent, the use of abrasive-laden fluids in oil drilling presented a serious valve problem: how to maintain an effective seal actuated by upstream fluid pressure, yet at the same time protect the flexible sealing material from damage caused by the gate (the valve closure member that moves up and down to open and close the

[3] "Allen Patent 2,606,740 CLAIM 1: In a valve structure, a housing having a flow passage therethrough and a chamber for a valve closure member intersecting said passage, a valve closure member in said chamber and a sealing ring of relatively soft yieldable material surrounding said passage and carried by said housing on each side of said chamber, said rings each having flexible fluid pressure-actuated lips remote from and extending away from said passage, said lips having surfaces in communication with the interior of the body so that they are adapted when on the downstream side of the closure member to be forced by the upstream pressure into sealing engagement with said closure member. Allen Patent 2,606,740 CLAIM 2: In a valve structure, a housing having a flow passage therethrough and a chamber for a valve closure member intersecting said passage, a valve closure member in said chamber and a sealing ring of relatively soft yieldable material surrounding said passage and carried by said housing on each side of said chamber, said rings each having spaced apart fluid pressure actuated lips remote from and extending away from said passage, said lips having pressure surfaces in communication with the valve body adapted when on the downstream side of the closure member to be forced by the upstream pressure into sealing engagement with said closure member and said body respectively. Allen Patent 2,606,740 CLAIM 4: In a valve having a body with a passage therethrough and a movable valve member to control the passage, a rigid part carried by the body, downstream of the

passage through the valve body thereby controlling fluid flow through the valve). When under high pressure, sometimes as much as several thousand pounds per square inch in drilling deep wells, the sealing material tended to "bulge" into the housing passage and would be sheared off by the gate as it slid past. Allen solved the problem by evolving a novel concept of arranging the elements of the valve and sealing ring.

The patent drawings illustrate two gate valves and a plug valve, but since the accused Mudwonder valve is a gate valve, the discussion in this opinion is confined to gate valves. Basically, a gate valve embodies four essential elements: (1) a conventional housing with a flow passage that connects the pipes leading to and from the valve, (2) a chamber intersecting the flow passage in which the movable

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valve member, with an opening therethrough providing a portion of the body passage, said part having an edge conforming with a confronting surface of the valve member when in closed position, said valve member mounted so as to have its said confronting surface move relative to said edge of the part when the valve member is shifted to open and close the valve, said part mounted to provide a channel between it and the body, said channel opening into the interior of the body, a resilient lip type seal element within the channel having one lip extending away from said body passage and along the confronting surface of said valve member outwardly of said rigid part when the valve member is in closed position and having its surface laterally remote from said confronting surface in communication with the interior of the body to thereby be adapted to be engaged by the valve member when in closed position to seal between the valve member and the part. Allen Patent 2,606,740 CLAIM 5: The assembly of claim 4 wherein the rigid part is removably mounted in the body and the seal element has another lip extending outwardly from said part and along a portion of said body, said lip having a laterally disposed surface from said body in communication with the interior of the body to provide a seal between the body and the part."

valve closure member, or gate, is located; (3) the gate itself, mounted so as to move up and down in the chamber, shutting off the flow when the gate is across the flow passage; and (4) a sealing element to prevent leakage flow around the gate when it is closed. Thus, when the gate is across the flow passage, the valve is closed; when the gate is raised to a position not obstructing the flow passage, the valve is open.

The Allen solution utilizes lip-type seals or rings "of relatively soft yieldable material" surrounding the flow passage and carried by the valve housing on each side of the chamber. These seal rings are two separate and independent composite metal and rubber structures mounted on the body (the lower rigid part of the valve containing the fluid passage that is connected with the pipe line). One is on the upstream side (the side to which fluid under pressure is applied) and one on the downstream side (the outlet or low pressure side toward which fluid tends to flow). Although the valve is capable of use with either end as the inlet, the seal is always effected against the valve closure member around the valve outlet (i.e. on the side away from the greater pressure). The lip seal permits upstream pressure to pass into the valve chamber but compresses the downstream lip, sealing the pressure fluid against flowing out of the valve chamber on the downstream side.

A close similarity plainly exists between the Allen valve and the accused Mudwonder valve in principle, structure, and method of operation. The accused Mudwonder valve, like the Allen valve, has fluid pressure actuated sealing means that do not tend to tear off or be blown past the valve closure member when the gate is being opened or

closed. The Mudwonder embodies the same four elements described as essential in an effective gate valve. The Mudwonder valve, like the Allen patent valve, provides its seal on the downstream side of the closure member, by lips that are forced into sealing engagement with the closure member by the upstream pressure in the chamber. Thus, as in the Allen patent, the seal is always on the outlet or downstream side, and the upstream pressure leaks by the lips on the upstream side of the gate and passes into the valve chamber. A difference, however, is that the lips of the Mudwonder valve confronting the gate and engaging it are joined at their lower ends by a crescent-shaped bridge that makes it easier to install the seal ring insert. The bridge also provides a seal against the very bottom of the gate, but it does not change the function of the lips in sealing three fourths of the way around the passage.

The basic issues before us are largely factual. The defendants-appellants, however, specify a large number of alleged errors by the trial judge. They argue vigorously that the sum of these errors made it impossible for the trial judge to reach a proper decision on the merits. We shall, therefore, take up these contentions, or most of them, before discussing the major issues of validity and infringement.

I.

First, defendants contend that the trial judge misinterpreted the earlier litigation by giving the Stekoll case the force of res judicata or estoppel by judgment, precluding his making an independent determination of the validity of the plaintiff's patent. The trial judge did make references

to the Stekoll case having upheld the validity of the Allen patent.[4]

A decision adjudging a patent valid is binding neither as res judicata nor as estoppel by judgment in suits against different parties involving different prior art. *Graham et al* v. *Cockshutt Farm Equipment, Inc.* 117 U.S. USPQ 439. See 3 Walker, Patents, §§608-09. Looking at the record as a whole, however, we find that the trial judge did not regard Stekoll as binding on him in this different case. He permitted the introduction of voluminous evidence on the issue of validity of the patent in suit. He made detailed findings distinguishing the Allen patent from the prior art. He gave detailed reasons for his conclusion that the Allen patent was valid. He may have made a bow or a grimace in the direction of Stekoll. That is all he did. The district judge's comprehensive findings and conclusions on the issue of validity are inconsistent with any view except that he reached his own decision, without benefit of res judicata or estoppel by judgment.

II.

The defendants cite certain remarks by the trial judge as indicative of the fact that he was confused as to which valve was the Allen valve, causing him to misinterpret the evidence on the issue of infringement. On the second day of the trial Cameron conducted demonstrations at its

[4] "The Court: Well I was seduced in the Stekoll case on that very same argument and I was led into error, and I was seduced by the advocates of the *prior art theory*, and I thought it was right but I was wrong. * * * On the issue of validity, I find the patent valid. I find it infringed. *Its validity has been adjudged in the Stekoll case.*" (Emphasis added.)

plant to enable the trial judge to observe the operation of the valve in the Allen patent. Two days later the trial judge referred to the tested valve as the Mudwonder valve.[5] Counsel for the defendants did not correct the mistake.

This is the second time the trial judge has had a long trial over the Allen patent. The record relating to the test shows that he was keenly interested in the test and had a full understanding of the subject. The record as a whole shows that the trial judge scrutinized the evidence closely and was not confused as to the valves. The descriptions of the two valves in the findings of fact show no confusion or misunderstanding in the judge's mind. We consider that the mistake was an inadvertent slip negated by the trial judge's demonstrated knowledge of the identities of the valves.

III.

The defendants argue that the trial judge improperly excluded certain exhibits relating to negotiations between the parties. The exhibits were excluded as privileged communications relating to a proposed settlement. Allegedly, the exhibits establish that during two years of negotiations Cameron made no contention that the Mudwonder valve infringed the Allen patent; that the defendants consistently

[5] The Court: "Now, the other day, we went out to Cameron Iron Works and we saw the valve tested. It was the accused Mudwonder valve, and now we have to go through the same thing again in the court room, which I am willing to do, and, in addition to that, we have great piles of documentary exhibits. ¶ With that announcement I am going to recess until 1:45 but I want the attorneys on both sides to recognize your obligation, that when you have your day in court that you organize your case to be able to present it quickly and understandably without a great amount of repetition, which we seem to be indulging in."

maintained the Mudwonder valve did not infringe the Allen patent, and advised Cameron accordingly. Exclusion of these exhibits, the argument runs, prevented an adequate defense to Cameron's charge that as early as 1953 the defendants expected Cameron to sue them under the Allen patent. The evidence, it is said, refutes the court's finding that the infringement was "bold, deliberate and wilful."

Cameron learned of the Mudwonder valve when it was first publicly displayed in the spring of 1953. In September 1953, Cameron asserted that the Mudwonder valve was covered by the claims of its pending patent application Serial No. 377,145, filed in the Patent Office August 28, 1953 (not the patent in suit). In January 1954 Cameron offered the defendants an exclusive license to manufacture and sell the Mudwonder valve, and negotiations were continued on this basis until July 1955 when, so the defendants contend, Cameron, for the first time, asserted infringement of the Allen patent.

Acts performed and letters written during attempted settlement negotiations are usually inadmissible. The law favors settlements. A man will hesitate to discuss a settlement if he thinks his words or willingness to settle will be turned against him. *Home Ins. Co. of N. Y.* v. *Baltimore Whse. Co.*, 1876, 93 U.S. 527, 548, 23 L.Ed. 868; *So. Ruy. Co.* v. *Madden*, 4 Cir., 1956, 235 F.2d 198; 4 Wigmore, Evidence, §1061 (3rd ed.).

We have examined and considered the excluded letters and papers. Some are self-serving. Some are mere inter-office memoranda. Some contain offers to settle in order to avoid litigation, the very kind of evidence the general rule is intended to guard against. The trial judge requested the defendants to point out concessions or admissions against

interest that could properly be considered. They made no effort to separate the good from the bad. If some evidence is admissible, and other evidence is inadmissible then the whole (if properly objected to) is inadmissible; it is for the proponent to sever the good from the bad. *Laflin* v. *Shackleford*, 5 Cir., 1899, 98 Fed. 372, 374; 1 Wigmore, Evidence, §17(b)(2) (3rd ed.) Under Rule 43(c) the trial judge allowed the defendants complete latitude to offer the evidence and supporting testimony, before ruling on the admissibility of the exhibits. We hold that the trial judge could require the defendants to point out the admissible proffered evidence and, in default of the defendants pointing out such evidence, could properly exclude the mass of evidence relating to the settlement negotiations.

IV.

The defendants contend that the Allen patent is a "paper patent" never sold commercially. In a close case the existence of a patent only on paper might tip the scale against a holding of infringement. But lack of commercial success does not preclude enforcement or indicate lack of invention. *Specialty Equipment Co.* v. *Coe*, 1944, 324 U.S. 370, 65 S.Ct. 741, 89 L.Ed. 1006. Allen testified that the new valve was not considered a sufficient advance over the "Flex-Seal" valve, then in profitable operation, to justify the expenses necessary to adopt such a new item in Cameron's line. An unfavorable economic situation existing at the time of invention in no way disproves the novel concept of a patent. In the Stekoll litigation the Court found that Cameron had not put the Allen patent to commercial use but held the patent valid and infringed.

V.

The defendants' basic contention as to non-infringement is that the Mudwonder valve and Cameron's Allen valve, although both are rubber sealed gate valves, are structurally, and functionally different. They describe the "Mudwonder" valve as a gate valve in which the seal is made at the bottom and sides of the gate by a unitary composite metal rubber insert.

There is no dispute over the structure or identity of the "Mudwonder" valve. The parties agree that Edward's British patent correctly portrays the form of the "Mudwonder" valve. The British patent describes the two rings of the "Mudwonder" composite insert as follows:

> "More specifically the present invention provides . . . a resilient sealing structure having spaced coaxial sealing ring portions encircling and permanently bonded to a pair of metallic load bearing reinforcing rings, the ring portions being integral with and interconnected by a bridge having a concave seating surface to be engaged by the bottom . . . gate. . . ."

In both the Allen patent and the Mudwonder valve the mechanism providing the seal between the body and the gate includes a rigid member and rubber rings. But in the Mudwonder valve the rubber rings are joined by a crescent-shaped bridge that is engaged only by the bottom surface of the gate. In the Allen patent there is no bridge for engaging the bottom of the gate. Allen's patented valve, in fact, has neither this bridge portion nor anything looking like it. The defendants assert that the bridge is a critical portion

of the composite insert, that it sustains the most severe wear and tear, and that it is wholly different in structure, mode of operation and result from the sealing lips that make and break the seal in the valve on the Allen patent. To us, as to the trial judge, the Mudwonder valve does not differ so greatly from the Allen valve as the defendants declare. The Edward British patent recognizes that the pressure of the controlled fluid actuates the sealing ring: "It is a further object of the present invention to provide novel renewable resilient valve seal inserts which cooperate with the valve body and gate in such a manner that the pressure of the fluid to be controlled affords hydraulic support for the insert and augments the effective sealing pressures."

The most severe operating conditions occur when the valve is moved into a closed position with fluid under high pressure flowing through the valve and when the valve is opened while full line pressure is applied to the upstream side of the valve. The important point in the seal occurs when full line pressure is within the valve up to the downstream sealing ring and a relatively low pressure exists downstream of the closed gate and of the downstream sealing ring. Extreme pressure differential of this kind exists from the time the valve member is moved from full closed position until the bottom of the gate uncovers the lower portion of the opening in the metal ring. When full line pressure is retained in the valve chamber, the full pressure differential is across the downstream sealing ring. The most critical point occurs when this pressure differential is broken: when the gate has started to uncover the opening in the downstream ring. But from the time contact with the bridge is first interrupted until the gate has moved to the point that the metal ring opening is exposed, only the

lips provide the seal.[6]. In the first "Mudwonder" experimental valves the surface of the bridge was flush with the lower edge of the opening in the metal ring and pieces of rubber were blown between the gate and the ring. The movement of the gate across the metal ring cut away these pieces. The Mudwonder bridge was not usable at all until it was lowered with respect to the opening in the metal ring and the lips extended within the bridge, providing lip action, as in the Allen valve.

Thus, the defendants' contention that the lips play no part in the seal at the critical time of making or breaking the seal and their attempts to differentiate the two valves on the basis of structure and mode of operation are unconvincing. The lower court correctly described the structure of the Mudwonder valve and its mode of sealing.[7]

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[6] "Now, when the gate begins to move upwardly, * * * toward open position, it will first expose to the fluid pressure within the valve housing the extreme lower lip of that portion of the left-hand sealing ring which is in engagement with the gate. The fluid pressure within the valve housing will then be allowed to act upon an ever increasing amount of the face of that lip which engages the gate when the gate is closed. With fluid pressure on both sides of this sealing lip there is no tendency for the lip to follow the gate as it moves toward open position and hence there is no tendency for the fluid pressure from the upstream side of the valve to blow the sealing ring past the gate." (Allen patent PX 7 Ex. Vol. 1, p. 24, col. 3, lines 3-17).

[7] "47. The lips of the Mudwonder valve seat insert, including their ridge portion, function in the same manner to provide the seal as do the lips in the Allen patent. Each Mudwonder seal ring has two lips, one engaging the gate and the other the body. On each lip, engagement is provided for by the ridge portions. This engagement is variously called 'engagement', 'interference or 'precompression'. The engagement is not tight enough to seal off the pressure to be contained. Thus, the pressure fluid leaks by the lips on the upstream side of the gate to pressurize the chamber. The fluid pressure in the chamber works against the

VI.

The defendants deny infringement, on the ground that, "read in their normal sense", the claims of the Allen patent do not cover the accused "Mudwonder" valve.

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exposed surface of the downstream lips forcing the rubber into tight sealing engagement with both the gate and the body. This augments the intial engagement of the lips with the gate and the body. Under pressure the gate is supported by the metal rigid ring on the downstream side and the rubber sealing lip is fluid pressure energized to seal the joint between the gate and rigid part and between the rigid part and the body. This is illustrated by Plaintiff's Exhibit 19 and Defendants' Exhibit 29.

48. In the Mudwonder valve the seal is provided for the gate by the lip on the downstream side, which engages the gate all the way around the passage with the exception of the part covered by the bridge. The seal is provided by the bridge on the lower section. The lips engaging the body on the downstream side seal completely about the passage.

49. The lips of the Mudwonder, that engage the gate, throughout their extent function exactly as the lips in the Allen patent in opening and closing of the valve. These lips, when on the downstream side of the gate, are supported by the rigid, inner, metal part at any time that a pressure differential exists across them. As the gate is raised in opening, the pressure is first equalized across the lip and then the metal inner support is uncovered. This situation exists throughout the opening and closing movements at all times that the gate is separated from the bridge. Thus, as in the Allen patent, the lips are not blown from position by the pressure as the valve is operated.

. . . .

52. The manner in which the gate seals against the bridge is described in the report of C. C. Stevens, defendants' research engineer, Plaintiff's Exhibit 21, at page 5 under the heading 'Throttling Action' and more particularly in the last two paragraphs of that heading. This portion of the Mudwonder sealing mechanism is outside the teaching of the Allen patent, but does not affect the sealing action of the lips. To the extent that the lips are employed, they are the sole sealing means extending approximately three fourths of the way around the flow passage.

. . . .

A. The defendants argue that the "lips" defined in detail in the Allen patent and in each of the Allen claims do not exist in the Mudwonder valve. The parties disagree as to the meaning of the words "lip" or "lips" as used in all of the claims of the Allen patent. But the defendants themselves, as late as June 27, 1955, used the term "lips" to describe the seat insert of the Mudwonder valve in the report of their research engineer C. Stevens. In talking of the insert, the Edward men spoke of the "lips", and in applying for a United States patent on the Mudwonder valve as first prepared they used the term "lips" with reference to the seals. Later, they stopped using the term in describing the Mudwonder, although they did not delete the term from their patent application until July 1, 1953. And, by their own admission Edward's officers definitely knew about the Allen patent long before they decided to stop using the word "lips".

The lower court made comprehensive findings of fact comparing the function of the "Mudwonder" lips with the lips in the Allen patent and showing that the two devices provide the seal in the same manner.[8] These findings are supported by the description in Edward's British patent of the operation of the valve, especially with respect to the operation of the sealing mechanism and the manner in which pressure leaks past the upstream seal.

1. The defendants assert that the "lip" disclosure of the Allen patent specification and drawings does not cover the structure of the Mudwonder valve and is inconsistent with Cameron's own claim in the suit. Thus, the Allen patent twice states that one of its objects is to provide a

[8] See footnote 7.

"special form" of sealing ring, and the only form of sealing ring disclosed is the form embodying lips separated by a V-shaped groove. Nowhere in the specification, drawings, or in the Patent Office record is there any reference to any form of sealing ring, special or otherwise, that does not have this V-shaped groove. But the principal object of the invention presupposes broader coverage than the particular form of lip shown in the drawing. The patent states: "The invention has as its principal object the provision of a valve having a fluid pressure actuated sealing means which will not tend to tear off or be blown past the valve closure member while the gate is being opened or closed." The reference to a specific aspect of the invention does not limit the broader statement of the "principal object" and the claims. See 2 Walker, Patents, §256 (the claims measure the invention) and §241 (patents liberally construed); Crews, "Patent Claims and Infringement," Dynamics of the Patent System, pp. 128-54 (1960 ed.). We find that the objects identified as "lips" do not refer to a particular shape of lip or V-shaped groove. That qualification appears only in the description of the specific embodiments. It is well-settled that the claims delineate the scope of protection afforded by a patent, not the specific embodiments shown in patent drawings. 2 Walker, Patents, §256. See *Cameron Iron Works* v. *Stekoll*, 5 Cir., 1957, 242 F. 2d 17; *Continental Paper Bag Co.* v. *Eastern Paper Bag Co.*, 1907 210 U.S. 405, 52 L. Ed. 1122, 28 S.Ct. 748. Complying with statutory requirements, the Allen patent specifications illustrate certain embodiments but not *all* embodiments of the invention. 35 U.S.C. §112. We find that the principal object of the invention, the statement of results, and the subsidiary objects referring to lips all apply to the Mud-

wonder valve. They closely correspond to the appellants' own description in their British patent. Since the bounds of the Allen patent are measured by the language of the claims, not by the specific embodiments illustrated and described in the patent, absence of the V-shaped groove in the "Mudwonder" valve does not exempt it from infringement of the Allen patent.

2. The defendants contend that the Allen patent claims are limited (by amendments added after final rejection in the Patent Office) to structures not present in the "Mudwonder" valve. Claim 1 states that the lips are "flexible" and that they have "surfaces in communication with the interior of the body" upon which the upstream pressure acts to force them into sealing engagement with the closure member. Defendants say that these surfaces are not present in the accused structure. Claim 2 states that the rings each have fluid pressure actuated lips that have pressure surfaces in communication with the valve body. The defendants also make the point that the lips can be spaced apart only because of their separation by a V-shaped groove between them, and that the sides of the groove form the "pressure surfaces" called for in the claim. Claim 4 defines a lip surface that is laterally remote from the valve closure member. This, they say, means the inclined lip surface formed by one side of the V-shaped groove. Claim 5 calls for a second lip with a "laterally disposed surface" extending from the body and communicating with the interior to provide a seal between the body and the part. As to this, defendants contend that the "laterally disposed surface" refers only to the other side of the V-shaped groove. In defendants' view all of the Allen claims, then,

are related to the V-shaped groove and, this groove does not exist in the accused "Mudwonder" structure.

A comparison of the "Mudwonder" seal with the definition of the lips as contained in the claims of the Allen patent does not bear out the defendants' contention. The lower court found that the two valves were substantially identical as to structure, work done, function, and result.[9] The evidence amply supports these findings.

3. The defendants attempt to make capital out of the Patent Office's insistence upon, and Allen's adoption of, a lip definition precluding infringement by the accused valve. Allen's patent was filed April 5, 1945, but was not granted until 1952, seven years and four rejections later. In 1951 the

[9] "50. The Mudwonder valve meets literally the terms of claims 1, 2, 4 and 5 of the Allen patent. There are resilient seal elements which extend about the flow passage on each side of the gate. This is stated in defendants' British patent, at page 5, column 1, lines 12 to 19. The bridge joins the seal elements at their lower portion. The lip which engages the gate does not extend completely about the passage, but the Allen patent claims in defining the invention do not recite that the lip extends completely about the passage. Neither the Allen patent specification nor the prior art limit the invention to "lips" that completely surround the passage so as to exclude the Mudwonder valve where the "lips" extend only approximately three fourths of the way around the flow passage.

51. The Mudwonder valve meets the terms of the claims from the standpoint of structure and function, and from the standpoint of the interaction of the parts. Without the lip action there would be no seal, and the lips, because of their arrangement conforming to the wording of the claims, are not blown out of place when the valve is opened and closed under pressure. Neither the Allen patent claims nor the prior art limit the shape of the 'lip'. Indeed Greve, in Fig. 3, shows lips with both acute and obtuse angles and explains that they 'act in substantially the same manner' as the more conventionally shaped lips shown in Fig. 2."

Patent Office issued a final rejection, with the Examiner stating that "The mere recitation of a 'lip' does not define structure distinguishable over the seal ring of Fulpius. Recitation of the shape which constitutes said lip would apparently be distinguishable." After this rejection, Allen added the definitions of the lip surfaces called for in claims 1, 2, 4 and 5 of his patent. The Patent Office then granted the patent, apparently satisfied with the adequacy of the definition. On the basis of these facts the defendants submit that the "lips" of the Allen patent claims are substantially those shown in the Allen drawings and specification.

Allen submitted eleven claims originally, and five additional claims during the prosecution of the application. Eleven claims were cancelled before the patent was finally granted, and none of the claims finally issued in their original form as patent claims. The defendants concede that the cancelled application claims are of wide enough scope to encompass the Mudwonder valve, but insist that the Patent Office rejected such claims and required their restriction to the point where they now no longer cover the accused valve. The claims of the Allen patent would never have been allowed, they say, had Allen asserted the scope for which he now contends. We are asked to apply the doctrine of file wrapper estoppel. That doctrine applies when a patentee, required to give up certain subject matter in order to obtain his patent, later attempts to construe the allowed claims to recapture that which he has surrendered. The doctrine prohibits the revival and restoration of an abandoned claim to the patent by reading it into the claims that are allowed. *Schriber-Schroth C.* v. *Cleveland Trust Co.*, 1938, 305 U.S. 47, 59 S.Ct. 8, 83 L.Ed. 34, and connected case 311 U.S. 211, 60 S.Ct. 710, 84 L.Ed. 1019;

Exhibit Supply Co. v. ***Ace Patents Corp.***, 1942, 315 U.S. 126, 62 S.Ct. 513, 86 L.Ed. 736. ***White*** v. ***Gage***, 5 Cir., 1942, 128 F. 2d 500. See 2 Walker, Patents, §249; Ellis, Patent Claims, §34.

We do not find this doctrine applicable here. Allen did *not* comply with the Examiner's suggestion that the claims be amended to recite the "shape" of the lip. Instead, he amended the claims by specifying the location of the lips and of the surfaces exposed to the interior of the valve chamber. Allen advised the Examiner that the "location" of the lips, not the shape, was added to the claims, pointing out that the location of the lip in relation to the valve passage, closure member, body and chamber is of the essence of the Allen invention and gives rise to its advantages. On this argument the Examiner allowed the claims. Furthermore, the statement of the Examiner cited by the appellants does not apply to Allen claims 1, 2 and 3, as those claims had already been allowed at the time the statement was made.

4. The defendants contend that Cameron has used, manufactured, and sold lip type seal rings for many years, but has never referred to any sealing element that does not have the V-grooved seals as a lip type seal. Thus, it is said, for purposes of this litigation, Cameron has departed from its long-standing policy of consistently and properly applying the name "lip type seal" only to the V-grooved seals of the type shown in the Allen patent. But the term "sealing lips" as used in the Allen claims refers to the relative location and interaction of the parts of a sealing mechanism, not to their shape. It is their location and interaction that permits the lips to seal in one direction only and to seal by the action of the pressure fluid as it forces them into sealing relation with the metal parts. Indeed, Allen's

insistence before the Patent Office on defining the critical elements of the lips by their location and interaction, rather than by their shape persuades us that we cannot properly read limitations of shape, particularly with respect to the V-grooved seals, into the claims. Furthermore, Allen and Cameron used the term "lips" long before the infringement involved in this litigation. We cannot believe its use was arrived at for purposes of this suit.

5. The defendants contend that the plaintiffs, defendants and others have on occasion used the words "lip" or "lips" to apply to elements that do not correspond to the lip or lips called for in the Allen claims. But the definition of the word "lips" in the Allen patent claims corresponds to the common usage of the term. The defendants' argument here strikes us as odd, since it demonstrates that a lip type seal depends on the location and function of the parts, not their shape. This, of course, clashes with their contention that a lip type seal depends on a sealing ring with a V-shaped groove. In any case, we feel that use of this term by others, even when pertaining to other structures, corresponds to the use of the term in the Allen patent.

6. The defendants point to our decision in the Stekoll case and argue that if our interpretation of the word "lip" in that case is applied here, the lips called for in the Allen claims are not present in the accused structure. A principal prior art patent before the Court in the Stekoll litigation was Pratt patent 477605, the seal rings of which, so appellants contend, are substantially identical to the corresponding portion of the Mudwonder valve's composite insert. And, so their argument continues, the Pratt seal rings are the basis for our finding that the Pratt patent does not have

lips. *Cameron Iron Works* v. *Stekoll*, 5 Cir., 1957, 242 F.2d 17. The Pratt patent has no resilient sealing ring remote from the passage of the valve and clearly does not meet the terms of the Allen claims. Consequently this Court refused to accept it as prior art in the Stekoll case. But the Speed-O-Valve that *was* found to be an infringement in the Stekoll case does have a lip in the sense used by the Allen patent. And the Speed-O-Valve sealing ring does not have a V-shaped groove, thus varying from the appellants' definition of lip.

B. The defendants declare that the "Mudwonder" valve lacks other elements called for in the Allen patent claims. They point to claims 1 and 2 that call for resilient sealing rings "surrounding" the flow passage and "lips" on the rings, and argue that the lips must extend *entirely* around the flow passages. But the claims do not specify such an interpretation. At best it must be inferred from the fact that all the embodiments shown in the patent drawings have lips that completely encircle the passage. Such limitations, however, being omitted from the claims, should not be read into them. *Tubular Service & Eng. Co.* v. *Sun Oil Co.*, 5 Cir., 1955, 220 F.2d 27. But this is not merely a legal matter of patent interpretation. The trial judge disposed of the argument in his findings of fact:

> "50. The Mudwonder valve meets literally, the terms of claims 1, 2, 4 and 5 of the Allen patent. There are resilient seal elements which extend about the flow passage on each side of the gate. This is stated in defendants' British patent, at page 5, column 1, lines 12 to 19. The bridge joins the seal elements at their lower portion. The lip which engages the gate does not extend completely above the passage, but the Allen

> patent claims in defining the invention do not recite that the lip extends completely about the passage. Neither the Allen patent specification nor the prior art limit the invention to "lips" that completely surround the passage so as to exclude the Mudwonder valve where the 'lips' extend only approximately three fourth of the way around the flow passage. . . ."

The manner in which the gate seals against the bridge is outside the teaching of the Allen patent. The lips of the Mudwonder seat insert are lips both in structure and in function or in manner of sealing as called for in the patent claim. Similarly, the defendants declare also that the Mudwonder valve has no "channel", as recited in claims 4 and 5, between the rigid part and the body in which the resilient seal element resides. The lower court found as a fact that "surrounding each of the rigid metal rings and extending outwardly therefrom are resilient soft yieldable rubber-like seal elements contained in channels formed between the body and the rigid parts." This channel also appears in the British patent drawing. The evidence supports the district court's findings.

C. The defendants attempt to distinguish the mode of operation of the Mudwonder valve from the mode of operation of the Allen patent valve.

1. The first major difference allegedly is that the entire sealing action in the Allen valve occurs on a side face of the gate, whereas in the Mudwonder valve the side face of the gate seals only the upper portion of the flow passage. The Allen structure has no sealing member that can engage the side edge or the bottom peripheral edge of the gate. Yet the bottom peripheral edge of the gate is the most critical

Mudwonder sealing structure, since it finally seals the lower portion of the valve passage on closing and initially breaks the seal on opening of the valve. As discussed earlier, the most troublesome problem facing the valve designer is to provide a seal that will not tear off when the valve is opened and closed. The appellants contend that the Mudwonder valve and the Allen patent valve present basically different approaches to the solution of this critical problem. The Allen patent solves the problem by providing a sealing lip that is first uncovered to the high pressure fluid, equalizing the fluid pressure that acts on the two sides of the sealing lip. But the "lip" of the Mudwonder valve is not involved during the critical final closing and initial opening movement of the valve member. Again the answer to the argument is found in the lower court's findings of fact, fully supported by the evidence, and by the description in the Edward British patent.[10] As discussed in Section V the Mudwonder "lips" are effective as seals at the critical moments in the operation of the valve when the pressure differential is being balanced on the making and breaking of the seal.

2. The second major difference allegedly is that the seal in the Allen valve is made entirely by fluid pressure, but in the Mudwonder valve the seal is always made by direct mechanical rubber compression. However, in no circumstances is it made entirely by fluid pressure; it is augmented

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[10] "53. The prior art and the file wrapper of the Allen patent do not restrict the claims as to the form of the lips or as to the extent of the lips. The lips of the Mudwonder seat insert, as defined above, are lips both in structure and in function or manner of sealing as called for by the patent claims." See Finding 52 quoted in footnote 7.

by the application of such pressure. The lower court compared the "engagement" of the lip with the gate in the Allen patent with the "precompression" in the Mudwonder valve, and found that they were equivalent.[11]

The description on the Edward British patent states that 25 pounds pressure across the upstream ridge is usually sufficient to break the seal; the seal of valves holding 3000 p.s.i. and higher pressures may properly be characterized as effected entirely by fluid pressure. The appellants' argument is refuted by the art: lip seals always engage the adjacent metal. Sufficient flare may be employed to permit a manufacturing tolerance for the parts, but the flare, as provided by the ridge in the Mudwonder valve, will only hold a very low pressure. If the fluid pressure, added to the slight interference of the flare, on the downstream sealing ring that applies the sealing force to the lip. Without the fluid pressure the seal would not occur in the pressure range of the valve. The purpose of the flare, as we see it, is to provide clearance between the gate and the metal parts so that the gate can engage both lips. In the light of the testimony, the description in the Edward British patent, and the other evidence and finding of the lower court on this factual point cannot be said to be clearly erroneous. Rule 52(a), F.R.C.P.

VII.

The defendants, with great earnestness, argue that if the claims of the Allen patent are construed to cover the Mudwonder valve, the claims are invalid over certain prior art patents. They contend also, however, that the Allen patent claims may be properly and validly construed, so

[11] See Finding 47 quoted in footnote 7.

that the Pratt patent 477608, the Jennings patent 564378, and Cameron's own Flex-Seal valve do not render any of the Allen claims invalid. Thus, to avoid the prior art the claims must be restricted to a definite lip shape. The thrust of the argument is that these prior art patents limit the Allen patent claims 1, 2, 4 and 5 to the embodiments illustrated in the patent. The trial court made comprehensive findings of fact on this point, distinguishing the Allen claims from the Flex-Seal valve and from the Pratt and Jennings patents on the basis that the claims as written do not read on this prior art. The trial court found that the prior art valves operate on entirely different sealing principles from the Allen patent valve.

The Flex-Seal valve does not have lips as called for in the Allen patent, its seal is effected mechanically instead of by fluid energization, as in the Allen patent, and not having lips, it does not have the surface on the lips exposed to pressure within the body when the valve is closed to be urged into sealing engagement with the metal parts. The evidence supports the lower court's findings that the Flex-Seal valve seals on a different principle and differs functionally and structurally from the Allen patent claims.[12]

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[12] Also, the principle of sealing of the Flex-Seal valve depends on the pressure applied to the hand wheel to close the valve. When closed at a low pressure, and the pressure subsequently increases, the valve may leak if it was not closed very hard initially — harder than may have been necessary because of the low pressure at the time it was closed. This disadvantage of the Flex-Seal valve prompted Allen to develop the valve in suit, in which the sealing action is completely independent of the amount of torque applied to the hand wheel of the valve, since the pressure sealed against by itself provides the principal energy for actuating the seal.

The Pratt and Jennings patents are distinguishable from the Allen patent claims on the basis that they seal on an entirely different principle. The detailed description of the Pratt patent illustrates that its "seat" does not structurally or functionally meet the term "relatively soft yieldable material" or "resilient lip type seal element" recited in the Allen claims; nor does "lips" as called for in the claims. It seals on the principle of external energization by wedging the gate against the seat rings by turning the handwheel; it is not energized by fluid pressure that forces the seal element into sealing engagement as does the Allen lip seal. The Jennings patent is similar to the Pratt patent. It, too, seals upon the principle of wedge action being externally energized; and at high pressures possibly a multiple area seal. Its seat rings do not meet the requirements of the Allen claims for "relatively soft yieldable material" or for "lips." The evidence supports the findings that neither the Jennings patent nor the Pratt patent meets the structural terms of the claims of the Allen patent. The argument on this point is basically factual. We find it unnecessary to go beyond the trial court's findings. They are not clearly erroneous but, are, we believe supported by the evidence. Rule 52(a), F.R. Civ. P.

VIII.

The defendants contend that Allen made misrepresentations to the Patent Office to obtain the grant of the patent in suit, and that these misrepresentations render the Allen patent unenforceable. After the Patent Office rejected six claims of the Allen patent application, Serial No. 586,657, as being fully met by the Brown patent No. 2,433,732, filed August 27, 1943, and rejected two previously allowed claims

as unpatentable over Brown, Allen represented by sworn statement to the Patent Office that he had constructed and successfully tested before August 30, 1943, a valve as disclosed and claimed in his application Serial No. 586,657. The defendants say that these representations were false; that as a result of them the Patent Office withdrew the Brown patent and also treated the Allen application as having been filed on August 27, 1943, instead of April 5, 1945, the date it was actually filed. Since Allen's allegedly fraudulent representations were made four years before the issuance of the Allen patent, the Patent Office was precluded during those four years from basing rejections on the Brown patent or on any other prior art that had an effective date between August 27, 1943, and April 5, 1945. They point to tests indicating the claimed resilient seals of the Allen test valve did not operate successfully and point to a statement by Allen that, so they say, represents the test valve as inherently incapable of successful operation as built.

It is clear from the evidence that the Patent Office never rejected claims such as those now appearing in the Allen patent on the basis of the Brown patent. It is not even contended that the Brown patent is pertinent to the present Allen patent claims. The file wrapper of the Allen patent shows that the withdrawal of the Brown patent played no part in the subsequent allowance of the Allen patent. A false statement does not destroy the presumption of validity of a patent unless the statement was "essentially material" to its issuance. *Carona Cord Tire Co.* v. *Dovan Chemical Corp.*, 1927, 276 U.S. 358, 48 S.Ct. 380, 72 L.Ed. 610; *Baldwin-Lima-Hamilton Corp.* v. *Tatnall Measuring Systems Co.*, 169 F. Supp. 1 (E.D. Pa., 1958), aff'd, 3 Cir.,

1959; 268 F. 2d 395. Furthermore, the Patent Office rules provide for removal of a reference when facts are proven to show a conception at a time before the filing date of the patent, followed by a diligent effort to reduce the invention to practice. See Ex parte Gasser, 1880 Commissioners' Decision, 17 O.G. 507. Allen followed established practice in submitting evidence to show the construction of the first valve and its tests followed by the test of the first modification.

The trial court made detailed findings of fact on this issue, concluding that Allen not only did not make false representations but that he made complete reports including lack of success in certain of the tests. The appellants have a heavy burden in alleging fraud. See Metal Extrusions, Inc., Bankrupt, 145 F. Supp. 51 (D.C.Fla., 1956) aff'd, *Porter* v. *Gerstel, Rec'r. of Metal Extrusions*, 5 Cir., 1957, 249 F. 2d 634; *Becton-Dickinson & Co.* v. *R. P. Scherer Corp.*, 6 Cir., 1954, 211 F. 2d 835. Fraud is a question of fact. Here, the question was resolved against the party urging it. In such a situation the findings of fact should not be disturbed unless they are clearly erroneous. Rule 42(a), F.R.Civ.P.; *Portersfield* v. *Gerstel, Rec'r of Metal Extrusions, Inc.*, 5 Cir., 1957, 249 F. 2d 634.

IX.

The defendants make the blanket charge that all of the claims of the Allen patent are invalid for want of invention over the prior art. They refer particularly to the Greve patent 1,968,200 and the excluded Walton patent 1,947,701. Neither was considered by the Patent Office and by the courts in the earlier litigation. The Greve and Walton patents both disclose a valve with a flexible

rubber seal ring that is provided with two flexible lips with a groove between them. In each of the Greve, Walton, and Allen patents the resilient sealing lips are stated to be fluid pressure actuated. The appellants did not notify Cameron of the Greve or Walton patents under 35 U.S.C. §282 until six days before the case was set for trial on June 1, 1959, and eight days before the trial actually commenced. The lower court allowed the introduction of the Greve patent, as Cameron had considered that patent in connection with the litigation more than thirty days prior to the filing of the civil action. The court excluded the Walton patent because of insufficient notice, since Cameron had no knowledge of it until the late notification. These actions were proper and within the court's discretion under the statute.

A. The court made detailed findings of fact, concluding that the Greve and Allen patents differed structurally and functionally. The Greve patent is for a spring actuated automatic check valve, allowing flow through the pump outlet but preventing backflow through it. In the Greve valve the flow can be in only one direction, because of the spring. For this reason lip seals can be used, since there is no reverse flow that would blow them out of position. The lower court found that no similarity existed between the lips of the Greve patent and the lips of the Allen patent from the standpoints of the problem presented, the functioning of the valve, or the arrangement of the sealing mechanism. Unlike the Allen patent, the seal element in Greve is always "upstream" and any reversal of direction of pressure differential holds the valve closed so that it is unable to produce a reverse direction stream flow. It is essential to the operation of the Greve patent valve that

the lips form a part of the passage rather than extend away from it. Claims 1, 2, 4 and 5 of the Allen patent all require the lips to extend away from the passage. Furthermore, the seal lips are disposed in a direction opposite to that required for fluid actuation, so they would be ineffective to stop flow even in the direction Greve described.

The mode of operation and the purpose of the Greve and Walton check valves differ from those of the Allen patent. The check valve automatically limits the flow of fluid to one direction and cannot be manually opened or closed, regardless of the pressure conditions existing in the system. By contrast, the Allen patent valve *is* manually operated and may be opened or closed regardless of the pressure within the valve. Greve and Walton cannot be converted into manual valves by adding a suitable operating mechanism, because if pressure occurred in the reverse direction, the fluid pressure would blow the lips from place and destroy them. There are clear differences in structure accounting for this. In Allen the valve chamber intersects the passage and there are two seal mechanisms in which the sealing rings and lips are "remote" from the passage and extend away from it. But in the Walton and Greve check valves the chamber, if any, is the flow passage itself and there is only a single sealing ring, the lips of which form the flow passage instead of extending away from it. In many high pressure lines the fluid flow direction changes, so that a commercial valve must be reversible. This adds to the difficulties encountered in effecting the seals. In the Allen patent valve and in the Mudwonder valve, sealing members are required on both sides of the gate. There must, therefore, be protection for the ineffective sealing member so that it will be available when needed to provide the seal.

Consequently, the reversibility of fluid flow direction and the requirement of upstream and downstream sealing lips are of considerable importance. We hold that the prior art patents disclose wholly different structure and character from the Allen invention. The novelty of the Allen invention lies in showing the way to employ lips in plug and gate valves where metal edges slide over the lips as they are being subjected to pressure differentials. For the first time Allen provided plug and gate valves that can be opened and closed at very high pressures and still have the advantages of lip seals where the high pressure is used to effect the seal. The Allen patent meets the statutory test of invention, as set out in 35 U.S.C. §103, that the invention not be obvious to a person of ordinary skill in the valve art.

B. The defendants contend that the lower court improperly excluded the Walton patent 1,947,071. Notice of intent to rely on the Walton patent was given May 26, 1959, some nine days before the trial. In such matters discretion resides with the trial judge, *Fairchild* v. *Poe*, 5 Cir., 1958, 259 F.2d 329, and should not be reversed without a showing of abuse of discretion. The defendants presented a considerable amount of testimony explaining the Walton patent under Rule 43(c), F.R.Civ.P., and Cameron's counsel fully cross-examined the witnesses. Apparently, the Walton patent is simple in structure, and does not require great study to be understood. What is more, the law firm of which Cameron's counsel is a member represented Walton, the patentee, in a law suit involving the patent in March 1959, three months before the trial here. We think that a strong case has been made for admitting the Walton patent as Cameron hardly seems surprised in such circumstances.

Even so, the error in excluding the Walton patent is harmless. It adds nothing substantial to the disclosures of the Greve patent insofar as it is applicable to the Allen patent. The evidence was at best merely cumulative. Rule 61, F.R.Civ.P.

X.

Finally, the defendants strongly resist the finding that they "wilfully, boldly and deliberately" infringed the Allen patent, asserting that Cameron did not charge either in the pleadings or at the trial that the infringement was "bold", "deliberate" or "wilful." The evidence shows, however, that counsel for the defendants advised them as early as March 13, 1953, that Cameron was almost certain to bring suit for infringement; nevertheless, they continued with their program of completing the development of the "Mudwonder" valve and putting it on the market. Considering the record as a whole, we cannot say that the trial court's determination is clearly erroneous. Rule 52(a), F.R.Civ.P.

XI.

We have considered all of the appellants' arguments, including those not discussed in this opinion. The record as a whole supports the district court's findings of fact and conclusions of law. We hold that the Allen patent 2,606,740 is valid and that claims 1, 2, 4 and 5 of it are infringed by the manufacture and sale of the appellants' Mudwonder valve. The decision of the lower court is

AFFIRMED.

A true copy
Test:

EDWARD W. WADSWORTH
Edward W. Wadsworth
Clerk, U. S. Court of Appeals, Fifth Circuit New Orleans, Louisiana
May 18, 1961
[SEAL]

IN THE

United States Court of Appeals

FOR THE FIFTH CIRCUIT

No. 18111

EDWARD VALVES, INC., and ROCKWELL MANUFACTURING COMPANY,

Appellants,

versus

CAMERON IRON WORKS, INC.,

Appellee.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF TEXAS

(April 18, 1961.)

ON PETITION FOR REHEARING

Before RIVES, CAMERON and WISDOM, Circuit Judges.

PER CURIAM: The appellants petition for a rehearing on two grounds. They aver that this Court erred in according undue weight to the trial court's "Findings" and in affirming the district court's holding of "wilful infringement".

(1) Appellants contend that this Court accorded undue weight to the trial court's "Findings", since the record

shows that: (a) the decision of the trial court is based upon a series of misunderstandings of the facts and the law; (b) the "Findings" are inconsistent with the trial judge's reasons for his decision; (c) the "Findings" were written by appellee's counsel and were adopted substantially verbatim by the trial court, including the same punctuation, numbering, grammatical errors, and peculiarities of expression used by appellee's counsel. Appellants argued the first two points fully in two briefs and in oral argument before this Court. We have considered and reconsidered these contentions, and we are still of the opinion that they lack merit.

We did not discuss the third point in our original opinion. Appellants assert that they do not criticize the "Findings" merely because opposing counsel wrote the findings. Instead, they contend that here the trial court exercised no independent consideration in adopting the appellee's suggested findings, and that these findings are inconsistent with the trial judge's reasons for his decision.

We strongly disapprove any attempt to downgrade a trial judge's important function of fact-finding. Findings and conclusions which represent a trial judge's "independent judicial labors and study" are far more helpful to this Court than the mechanical adoption of the successful attorney's "suggested" findings. *Kinnear-Weed Corp.* v. *Humble Oil & Ref. Co.*, 5 Cir., 1958, 259 F.2d 398, 401; *United States* v. *Forness*, 2 Cir., 1942, 125 F.2d 928, 942. Nevertheless, the same test is applied to findings, whether the court prepared them or adopted those submitted by counsel. The court's adoption of appellee's findings does not impeach or discredit them. We accord them full weight. *Mississippi Valley Barge Line Co.* v. *Cooper Terminal Co.*,

Inc., 7 Cir., 1955, 217 F. 2d 321, 322-23; *Vincent* v. *Suni-Citrus Products Co.*, 5 Cir., 1954, 215 F.2d 305, 310-11; *Tubular Service & Eng. Co.* v. *Sun Oil Co.*, 5 Cir., 1955, 220 F. 2d 27; *O/Y Finlayson-Forssa A/B* v. *Pan Atlantic Steamship Corp.*, 5 Cir., 1958, 259 F. 2d 11, 18, note 14. We have, however, compared the record and the findings in the light of the petition for rehearing. We cannot say that the findings fail to reflect the record or that there is so substantial an insistency between the findings and the district court's reasons for its decision as to require reversal of the judgment below.

(2) As to the second contention, on reconsideration, we think that we went too far in affirming the trial judge's finding that the appellants "wilfully, boldly, and deliberately" infringed the Allen patent. "Wilful infringement" was not charged in the pleadings or at the trial, and it cannot be said that the appellants have had a fair chance to meet this issue. In *Jeoffrey Mfg.* v. *Graham*, 5 Cir., 1953, 206 F. 2d 772, this Court held: "[W]e think it inappropriate and premature for this Court now to consider or pass upon the District Court's finding that the infringement was wilful and deliberate. . . . Those questions should properly await final judgment." See also *Continental Gin Company* v. *Murray Company of Texas*, N.D. Ala., 1958, 171 F. Supp. 730. Accordingly, we modify our original decision to the extent that we set aside the Trial Court's holding of a "wilful and deliberate" infringement. The finding, if any, as to wilful and deliberate infringement, should be delayed until after an accounting has been had and until final judgment.

Except as modified, the petition for rehearing is Denied.

A true copy
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[SEAL]